## REMARKS

Applicants have carefully reviewed and considered the Examiner's Action mailed January 17, 2007. Reconsideration is respectfully requested in view of the foregoing amendments and the comments set forth below.

Applicants thank Examiners Adams and Truong for the courtesies extended to their representative during the telephonic interview held on March 28, 2007. During that interview, the 35 U.S.C. §§ 101 and 112, second paragraph rejections and the prior art rejections in the Office Action mailed January 17, 2007 were discussed. Examiner provided language to overcome the 35 U.S.C. §§ 101 and 112, second paragraph rejections, and U.S. Patent Application No. 2003/010415 to Chang and U.S. Patent No. 6,112,203 to Bharat and proposed amendments to claims 1, 3-5, 11, and 13-15 were discussed. The following comments set forth Applicants' summary of the interview.

By this Amendment, claims 1, 3-5, 11, and 13-15 are amended; claims 2, 6-9, 12 and 16-19 are canceled; and new claims 21-28 are presented. Two additional independent claims are added for a total of 4 independent claims. Thus, the U.S. Patent and Trademark is authorized to charge our Deposit Account No. 22-0261 the $200.00 official fee for the independent claim over three. Accordingly, claims 1, 3-5, 10-11, 13-15, and 20-28 are pending in the present application.

Claims 1-20 were rejected under 35 U.S.C. §101 because the claimed invention allegedly was directed to non-statutory subject matter. As set forth in independent claims 1 and 11, an evaluation apparatus and method accurately evaluating the significance of an inherent string expression character string or "named entity" require a document weight

calculating section/process; and an evaluation value calculation section/process where the named entities having a higher significance (determined by the evaluation value calculation section of claim 1 or the significance judge process of claim 11) may be included in documents having less mutual relevance (determined by the document weight calculation section/process of claims 1 and 11). The claimed invention has two sections/processes to determine the accuracy of the named entities and is an improvement as discussed on pages 1-3 of the originally-filed specification. In particular, the evaluation section/process uses the weight value to determine an evaluation value and the significance of a named entity is judged based on the evaluation value. Claims 1, 11 and 25 now recite an "output section or process" that outputs the named entities based the judged significance. Therefore, the claimed invention produces a useful, concrete and tangible result to judge the significance of the named entities based on the evaluation value. Withdrawal of the rejection under 35 U.S.C. §101 is respectfully requested.

Claims 1 and 11 were rejected under 35 U.S.C. §112, second paragraph, as being indefinite for the reasons set forth at the top of page 3 of the Action. The foregoing amendments to claims 1 and 11 clarify the areas raised by the Examiner. With respect to the Examiner's questions concerning the mutual relevance and the judging of the significance, the mutual relevance is defined based on distance among the documents which is defined based on the number of the nodes or branches among the documents of the tree structure. Also, as recited in the claims, the significance of the named entities is judged based on the evaluation value where named entities have a greater evaluation value are given a higher significance. Thus, an evaluation value needs to be calculated before the significance of the named entities can be judged. Claim 11 clearly recites that

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a significance judge process judges a significance of the named entities. Consequently, it is respectfully submitted that claims 1 and 11 fully comply with 35 U.S.C. §112, second paragraph and withdrawal of that rejection is requested.

Claims 1-2, 5-12 and 15-20 were rejected as being unpatentable over U.S. Patent Application Publication No. 2003/0101415 to Chang in view of U.S. Patent No. 6,112,203 to Bharat et al. (hereinafter referred to as "Bharat") for the reasons set forth in paragraph 7 spanning pages 3-10 of the Action. This rejection is respectfully traversed.

As the Examiner acknowledged in the Office Action dated January 17, 2007, "Chang does not teach whereby the documents having less mutual relation are given a higher weight value" (Page 4, lines 7-8 of the Action). Instead, Chang discloses a weight for each page depth that is established to be inverse proportion to the page depth (see paragraph [0065] of Chang). Nowhere does Change disclose defining a mutual relevance for each document as required in the claimed invention. The claimed invention calculates a weight value based on the mutual relevance where documents having less mutual relation are given a higher value. Chang simply discloses assigning a weight to a document that is the inverse proportion of the page depth.

It is the Action's position that Bharat teaches weight equations in column 7, line 41 to column 8, line 9 that "work such that pages with a lower number of mutual relations to pages on the same server receive higher weights than items with a large number of mutual relations on the same server" (Page 4, lines 9-13 of the Action). However, Bharat describes that "Weight1(q, i)=1/k, where k is the number of pages with links to a page i that are on the same server as page q." (See column 8, lines 2-4 of Bharat.) Therefore, according to Bharat, the weight is defined based on the number of links. When the links

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are on the same server, the weight calculated by Bharat would be lower, but this is not the invention recited in claims 1 and 11 of the present application.

According to the claimed invention, the mutual relevance among a plurality of documents is defined based on distance among the plurality of documents which is defined based on number of nodes or branches among the documents of the tree structure. That is, the mutual relevance according to claims 1 and 11 is defined by the distance among the documents, not defined by the number of links or the number of pages pointing to by node j that are on the same server as page q, as taught by Bharat. As recited in independent claims 1 and 11, the distance is defined based on number of nodes or branches among the documents of the tree structure. Therefore, the recited invention of claims 1, 3-5, 10-11, 15 and 20 is fundamentally different than the weight calculations taught by Bharat. Consequently, Bharat fails to provide the missing element from Chang and thus, cannot render the invention set forth in the claims obvious.

Bharat does not disclose or suggest at least the feature of claims 1 and 11 as argued above. Nowhere does Bharat mention the term relevance let alone that relevance is defined based on the distance among the documents. In Bharat, it is impossible to judge the distance among the documents by using the number of links. Therefore, Bharat cannot disclose, teach or suggest to one of ordinary skill in the art the mutual relevance of claims 1 and 11. Consequently, there is no motivation to one of ordinary skill in the art to modify the assigned weights of Chang that are inversely proportional to page depth to include the recited "evaluation value calculation section calculating an evaluation value of named entities (part of the documents). Bharat simply discloses equations to rank documents, but those equations determine weight depending upon the number of pages

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with links to a page. There is no disclosure of an evaluation calculation section calculating an evaluation value of named entitites (part of a document) using the weight value determined by the mutual relevance. Accordingly, there is no motivation to modify Chang to 1) use equations to determine a weight value that gives an opposite result to that taught by Chang and 2) provide a second calculation using the weight value to establish an evaluation value calculation wherein the significance of the named entities judged based on the evaluation value is output as required by independent claims 1, 11 and 25 of the present application.

Furthermore, the Action asserts in the Response to the Arguments section that "Chang discloses arranging named entities by weight value. This is a measure of significance." (Page 15, lines 2-3 of the Action.) Paragraph [0098] of Chang discloses that the elements having the higher final weight value are arranged with priority. Under the invention as set forth in claims 1 and 11, the significance is determined by an evaluation value that is determined by using the weight value. Nowhere does Chang disclose this feature.

Chang discloses a weight assigned to each category class (Figure 3) and each tag (Figure 4). That is, Chang discloses that the weight is predetermined, for example, the weights of a tag are 5, 4, 3, 2, 1 according to the type of tag. Therefore, Chang does not disclose or suggest that documents having less mutual relevance being given a higher weight value, as required in claims 1 and 11 of the present application. Consequently, even if combined, Chang in view of Bharat failed to disclose, teach or suggest the invention as set forth in independent claims 1 and 11 and their respective depending claims. Withdrawal of the rejection of claims 1, 5, 10-11, 15 and 20 is respectfully

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requested.

Claims 3-4 and 13-14 were rejected as being unpatentable over Chang in view of Bharat and further in view of U.S Patent No. 6,138.113 to Dean et al. (hereinafter referred to as "Dean"), as explained in paragraph 8 spanning pages 10-14 of the Action. This rejection is respectfully traversed.

It is the Examiner's position that column 3, lines 31-43 of Dean teaches "wherein said document weight calculation section increases or decreases the weight value of a first document and a second document corresponding to the number of nodes of the tree structure common to the first document and second document." (Page 11, lines 1-4 of Dean.)

However, Dean describes that "...would give more weight to the term vectors of pages that are at a smaller distance K from the selected page 201" (see column 5, lines 4-6 of Dean). This means that the feature taught by Dean is the exact opposite from that recited in claims 1 and 11 of the present application. In claim 1 of the present application, the documents having less mutual relevance are given higher weight value. The invention of claims 1 and 11 of the present application address the problem that if the significance of a character string (e.g., words) described in a document assembly is evaluated depending only on the number of times that character string appears, there happens a case where such an evaluation per se is lacking in accuracy. For example, in the home page of a certain research institute disclosed on the Internet, it is natural that the name of a certain person belonging to that research institute frequently appears on the home page of the institute (see page 1, line 27 to page 2, line 8 of the present specification). Even if a certain personal name is described in many documents, it is not

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always judged that certain personal name has high significance. The personal name described in many documents that has less mutual relevance to other documents is given the higher significance as recited in claims 1 and 11. As the result of this, the invention according to claims 1 and 11 enable one to extract the important personal name (personality) with high accuracy (see page 29, line 1-6 of the present specification). In other words, if named entities have higher significance, the named entities may be included in the documents having less mutual relevance. Therefore according to claims 1 and 11 of the present application, the documents having less mutual relevance are given the higher weight value, and the named entities having a greater evaluation value are given the higher significance. Since neither Chang nor Dean disclose, teach or suggest such a document weight calculation/process and an evaluation section/process that creates an evaluation value based on the calculated weight value and determines the significance of the named entity based on the evaluation value, one of ordinary skill in the art would not have been motivated to modify Chang to achieve the claimed inventions set forth in independent claims 1 and 11. Depending claims 3-4 and 13-14 require all of the features of their respective independent claims. Therefore, withdrawal of the rejection of claims 35 U.S.C. § 103 is respectfully requested.

According to newly presented independent claims 21 and 25, a mutual relevance among a plurality of documents including the named entities is defined based on distance among the documents which is defined based on a hierarchical number of a reference relation between the respective documents. As described above, Chang does not teach documents having less mutual relevance being given a higher weight value, and according to Bharat, the weight is defined based on a number of links. In Bharat, it is
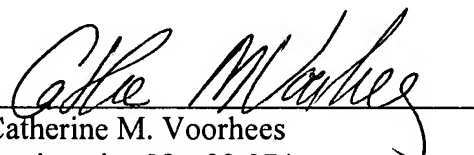
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impossible to judge the distance among the documents by using the number of links. According to claims 21 and 25 of the present application, it is possible to define distance among the documents based on the hierarchical number of the reference relation between the respective documents. Chang, Bharat, or Dean does not disclose, teach or suggest defining a mutual relevance based on distance among the documents which is defined based on the hierarchical number of the reference relation between the respective documents. Accordingly, 21-28 are patentable over the prior art of record.

In view of the foregoing amendments and remarks, it is respectfully requested that the rejections of record be withdrawn and that a Notice of Allowance be issued indicating that claims 1, 3-5, 10-11, 13-15 and 20-28 are allowed over the prior art of record.

Should the Examiner believe that a conference would advance the prosecution of this application, the Examiner is encouraged to telephone the undersigned counsel to arrange such a conference.

Respectfully submitted,

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